



**NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER
TECHNICAL REVIEW FORM**

**OZONE GENERATION AND FEEDING
(N.J.A.C. 7:10-11.16(i))**

Water Purveyor

PWSID#

Municipality

Provide the following information for each ozone feed:
(Attach additional copies of this page as necessary).

Purpose of Ozonation ¹			
Feed Gas		Feed Gas Rate lb/day	
Type of Ozone Generator		Number of units	
Capacity of units lb/day/unit		Control Method ²	
Ozone Feed Concentration %		Ozone dose rate mg/l	
Ozone Feed Rate lb/day		Number of Contactors	
Type of Contactors		Capacity of Contactor	
Volume of Contactor		Number of Diffusers	
Diffuser type and size		Gas Flow Rate	
Transfer Efficiency		Detention Time	
Anticipated Ozone Residual		Type and number of Ozone Monitors	
Type of Ozone Destruction Unit		Capacity of Unit	
Number of Units			

1 - Describe the purpose (i.e. pretreatment – oxidation, odor removal, TOC removal; disinfection, etc.).

2 - Indicate how the generators are controlled (i.e. flow pacing, residual pacing, etc.).

	YES	NO	N/A
General Information			
1. For those ozone treatment facilities which treat multiple sources or whose capacity exceeds 20% of the system capacity, are a minimum of two ozone generators provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. For those ozone treatment facilities which treat multiple sources or whose capacity exceeds 20% of the system capacity, are a minimum of two ozone contactors provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Is the variation in the accuracy of the feed system less than 5% of the intended dosage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Are there means provided to accurately measure the amount of ozone fed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Is equipment used for ozonation corrosion resistant?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ozone Generators			
1. Is the ozone feed system electrically connected to either a well pump or a booster pump?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the ozone generator cooling water introduced through an air gap or other approved method to prevent back siphonage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. If Liquid oxygen used as a feed gas is a minimum of 30 days storage provided? If not is there 14 days storage with remote telemetry to supplier for scheduling deliveries?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
4. Does the ozonation equipment have firm capacity to achieve the maximum design output of the station?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ozone Contactors			
1. For pretreatment in surface water treatment plants are a minimum of two contactors provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Are contactors sealed to prevent escape of ozone to the atmosphere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Is equipment (ozone destructors) provided to remove ozone from waste gas stream prior to discharge to atmosphere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. For those ozone treatment facilities which treat multiple sources or whose capacity exceeds 20% of the system capacity, are a minimum of two ozone destructors provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

YES NO N/A

Treatment Building

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| 1. Is the treatment building designed to meet the demand requirements pursuant to N.J.A.C. 7:10-11.6(a)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is auxiliary power provided? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Is the finished floor elevation a minimum of 1 foot above the highest recorded flood elevation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Disinfection by ozone

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| 1. Is the ozonation treatment system designed to provide sufficient disinfection of the water within the treatment plant with one treatment unit out of service? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Are the facilities designed to produce a ozone residual of _____ ? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. For ozonation facilities which treat ground water sources, is a minimum ozone contact time of _____ minutes provided to produce the above required residual? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. For ozonation facilities which treat surface water or ground water under the direct influence of surface water, is a minimum ozone CT value of _____ mg min/l provided to produce a _____log Giardia and a _____log virus inactivation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Is an alarm system to indicate ozonation failure provided for surface water systems and systems which do not meet State microbiological standards where ozonation is used for disinfection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Is an ozone residual analyzer provided to determine ozone residual leaving contactors? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

***Submit appropriate engineering plans, specifications, reports, etc. to substantiate your answers. ***

I hereby certify that answers provided herein are accurate and reflective of the project being considered for approval.

Signature of engineer
Professional Engineer's Embossed Seal

Date

N.J.P.E. #

Type or Print Name of Engineering Firm